```
                1        10        20        30        40        50        60        70        80
Consensus       MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
Identity        ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

1. 17v2|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPGLPGSPGLP
2. F|US10       MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
3. H129|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPGLPGSPGLP
4. KOS|US10     MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
5. McKr|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPGLPGSPGLP
6. HF10|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDHQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDSPGLPGSPG--
7. CR38|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
8. E03|US10     MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQHSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
9. E06|US10     MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
10. E07|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
11. E08|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
12. E10|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
13. E11|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
14. E12|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRHSPGRRVFPGSPGFRDHPENLGNPEYRELPETPGSRVTPGIHDNPGSPGLPGIH
15. E13|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRHSPGRRVFPGSPGFRDHPENLGNPEYRELPETPGSRVTPGIHDNPGLPG------
16. E14|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRHSPGRRVFPGSPGFRDHPENLGNPEYRELPETPGSRVTPGIHDNPGSPGLPGIH
17. E15|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRHSPGRRVFPGSPGFRDHPENLGNPEYRELPETPGSRVTPGIHDNPGSPGLPGIH
18. E19|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
19. E22|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
20. E23|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRHSPGRRVFPGSPGFRDHPENLGNPEYRELPETPGSRVTPGIHDNPGSPGLPGIH
21. E25|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
22. E35|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRHSPGRRVFPGSPGFRDHPENLGNPEYRELPETPGSRVTPGIHDNPGSPGLPGIH
23. R11|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
24. R62|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
25. S23|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------
26. S25|US10    MIKRRGNVEIRVYYESVRTLRSRSHLKPSDRQQSPGHRVFPGSPGFRDHPENLGNPEYRELPETPGYRVTPGIHDNPG--------

                90        100       110       120       130       140       150       160       170
Consensus       -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
Identity        +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

1. 17v2|US10    G------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQHGAYARARVGIHTAVRVPPTGSPTHTHLRQDPGDE
2. F|US10       -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
3. H129|US10    G------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGIHTAVRVPPTGSPTHTHLRQDPGDE
4. KOS|US10     -------LPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGIHTAVRVPPTGSPTHTHLRQDPGDE
5. McKr|US10    G------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
6. HF10|US10    -------LPGL---PGSHGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGIHTAVRVPPTGSPTHTHLRHDPGDE
7. CR38|US10    -------LPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQHGAYARARVGIHTAVRVPPTGSPTHTHLRQDPGDE
8. E03|US10     -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGIHTAVRVPPTGSPTHTHLRHDPGDE
9. E06|US10     -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
10. E07|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
11. E08|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRNDPGDE
12. E10|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
13. E11|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
14. E12|US10    DN---------------PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
15. E13|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
16. E14|US10    DNPGSPGLPGIHDNPGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
17. E15|US10    DN-----------------PGSPGPHAPPANHVRLAGLYSQGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
18. E19|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRNDPGDE
19. E22|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
20. E23|US10    DN-----------------PGSPGPHAPPANHVRLAGLYSQGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
21. E25|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
22. E35|US10    DN-----------------PGSPGPHAPPANHVRLAGLYSQGKYAPLASPDPFSPQDGAYARARVGLHTAVRVPPTGSPTHTHLRHDPGDE
23. R11|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDAAYARARVGIHTAVRVPPTGSPTHTHLRHDPGDE
24. R62|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDAAYARARIGIHTAVRVPPTGSPTHTHLRHDPGDE
25. S23|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDAAYARARVGIHTAVRVPPTGSPTHTHLRHDPGDE
26. S25|US10    -------SPGL---PGSPGPHAPPANHVRLAGLYSPGKYAPLASPDPFSPQDAAYARARVGIHTAVRVPPTGSPTHTHLRHDPGDE

                180       190       200       210       220       230       240       250
Consensus       PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
Identity        ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

1. 17v2|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
2. F|US10       PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
3. H129|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
4. KOS|US10     PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
5. McKr|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
6. HF10|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
7. CR38|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
8. E03|US10     PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLIHTQWLRANQETSPLWPWRTAAIN
9. E06|US10     PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
10. E07|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
11. E08|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
12. E10|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
13. E11|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
14. E12|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
15. E13|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
16. E14|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
17. E15|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
18. E19|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
19. E22|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
20. E23|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
21. E25|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
22. E35|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVDVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
23. R11|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
24. R62|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
25. S23|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN
26. S25|US10    PTSDDSGLYPLDARALAHLVMLPADHRAFFRTVVEVSRMCAANVRDPPPPATGAMLGRHARLVHTQWLRANQETSPLWPWRTAAIN

                260       270       280       290       300       310       320       327
Consensus       FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLCQDNLYP
Identity        +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

1. 17v2|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
2. F|US10       FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
3. H129|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
4. KOS|US10     FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
5. McKr|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
6. HF10|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGAPALTPPLC
7. CR38|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
8. E03|US10     FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
9. E06|US10     FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
10. E07|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
11. E08|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGAPALTPPLCQGNLYP
12. E10|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
13. E11|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
14. E12|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
15. E13|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
16. E14|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
17. E15|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
18. E19|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGAPALTPPLCQGNLYP
19. E22|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
20. E23|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
21. E25|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
22. E35|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGDPALTPPLC
23. R11|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGAPALTPPLCQDNLYP
24. R62|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGAPALTPPLCQDNLYP
25. S23|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGAPALTPPLCQDNLYP
26. S25|US10    FITTMAPRVQTHRHMHDLLMACAFWCCLTHASTCSYAGLYSTHCLHLFGAFGCGAPALTPPLCQDNLYP
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